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(54) **Gas turbine engine disk rim with axially cutback and circumferentially skewed cooling air slots**

(57) A gas turbine engine rotor disk assembly (10) includes a disk (12) having an annular hub (14) circumscribed about a centerline (16). An annular web (18) extends radially outwardly from the hub (14) to an annular rim (22). A plurality of dovetail slots (30) extend generally axially through the rim (22). A plurality of cooling air slots (32) extending generally radially through the rim (22) and are skewed circumferentially with respect to the centerline (16) and slanted axially aftwardly with respect to a normal radius perpendicular to the centerline (16). In the exemplary embodiment, each cooling air slot (32) has parallel side walls (36) skewed circumferentially with respect to the centerline (16) and an aft wall (38) extending between the side walls and slanted axially aftwardly with respect to the normal radius. The side walls (36) are skewed circumferentially about 5 degrees with respect to the centerline (16) and the aft wall (38) is slanted axially aftwardly about 18 degrees with respect to the normal radius.

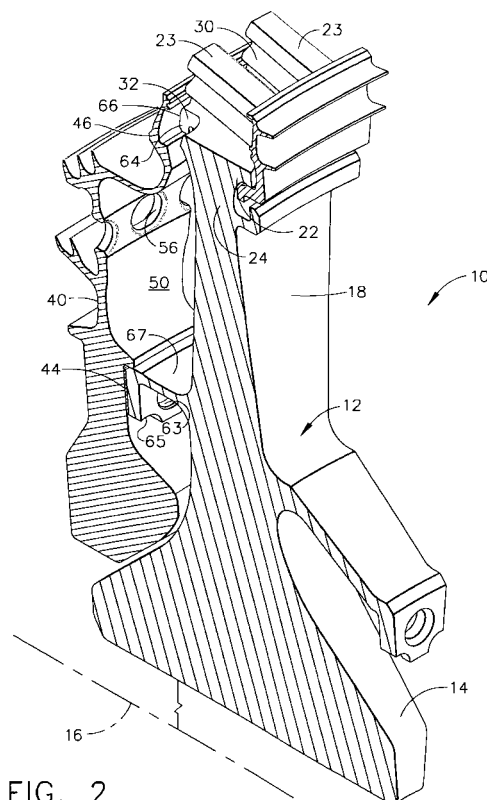


FIG. 2

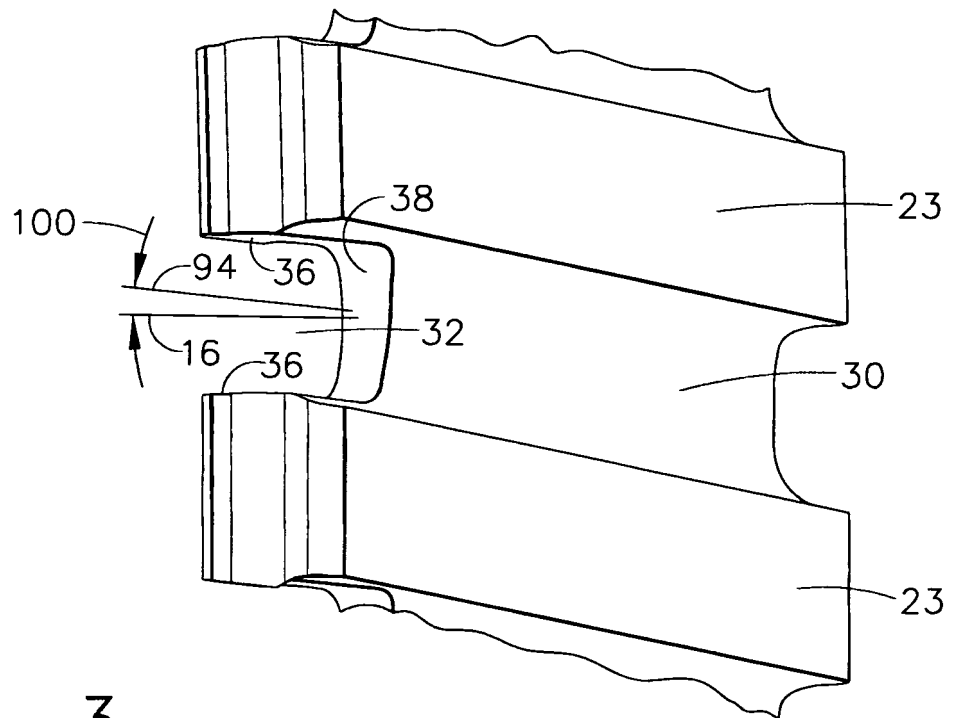


FIG. 3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	EP 0 814 233 A (ROLLS-ROYCE PLC) 29 December 1997 (1997-12-29) * column 3, line 44 - line 45 * * column 4, line 42 - line 48 * * column 6, line 1 - line 5 * * figures 3-5 * -----	1-3,6,10	F01D5/08 F01D5/32
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A	US 2 951 340 A (HOWALD WERNER E) 6 September 1960 (1960-09-06) * figure 2 * -----	1,2,6,8, 10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F01D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		28 September 2005	Angelucci, S
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (F04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 03 25 5403

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on the European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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